



2003 Urban Water Conservation Program

Grant Application Package

**October 1, 2002
(10/18/02 Version)**



**2003 URBAN WATER CONSERVATION
GRANT APPLICATION PACKAGE
OCTOBER 1, 2002**

The California Department of Water Resources (DWR) invites local agencies to submit an application for funding under the Urban Water Conservation Program.

APPLICATION DUE DATE:

3:00 p.m., December 3, 2002

Must be received, not postmarked, by this time and date.

SUBMIT APPLICATION TO: Submit 1 original, 8 photocopies, and 1 electronic copy, on 3.5-inch diskettes or CD-ROM (preferably in a PDF format, or in MS Word and/or Excel compatible format) to:

California Department of Water Resources,
Office of Water Use Efficiency
P.O. Box 942836
Sacramento, California 94236-0001
Attention: Marsha Prillwitz

or overnight carrier or hand deliver to:

California Department of Water Resources,
Office of Water Use Efficiency
1416 Ninth Street, Room 338,
Sacramento, California 95814
Attention: Marsha Prillwitz

QUESTIONS? NEED ASSISTANCE? CONTACT:

Marsha Prillwitz, (916) 651- 9674 or marshap@water.ca.gov
For an electronic copy of this Application Package, please go to this website: www.water.ca.gov

Notice of Public Workshops

Introduction:

The California Department of Water Resources invites local agencies to submit an application under the Urban and Agricultural Water Conservation Programs.

Workshop Dates and Locations:

Tuesday October 8, 2002	Thursday October 10, 2002	Thursday October 17, 2002	Monday October 21, 2002
10:00 am–12:00pm Cucamonga County Water District 10440 Ashford Street Rancho Cucamonga, California	10:00 am–12:00pm USDA-NRCS 430 G Street Room 229 Davis, California	10:00 am–12:00 pm Department of Water Resources Northern District Room No. 66 2440 Main Street Red Bluff, California	10:00 am–12:00 pm Modesto Irrigation District 1231 Eleventh Street Modesto, California

Purpose of Workshops:

These public workshops will provide information about the application package, such as describing the application and the review and selection process, and answering questions.

Workshop Agenda:

Welcome and Introductions	10:00 am
Urban Water Conservation Grant Program	10:30 am
Agricultural Water Conservation Loan Program	11:00 am
Public Comments and Questions	11:30 am
Adjourn	12:00 pm

For More Information:

Please direct specific questions related to the Urban and Agricultural Application Packages to Marsha Prillwitz at:
(916) 651-9674 or marshap@water.ca.gov.

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Introduction

The Urban Water Conservation Program of the Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act (Water Code Section 79157 et seq.) authorizes the California Department of Water Resources (DWR) to make grants to local public agencies and incorporated mutual water companies to finance feasible, cost effective urban water conservation projects to improve water use efficiency. Up to \$5 million is available for each capital outlay project. A total of \$18 million is available for projects during this funding cycle through this program.

DWR is a participating agency in the CALFED Bay-Delta Program. The CALFED Bay-Delta Program Final Programmatic EIS/EIR was released July 21, 2000 and the Record of Decision (ROD) was published August 28, 2000. As described in these documents, the Bay-Delta Program includes strategies to address ecosystem health, water supply reliability, water quality, and levee system integrity. Water use efficiency is critical to the successful implementation of all aspects of the CALFED Program.

General Instructions

Applicants are encouraged to contact DWR for assistance early on or any time in the process of preparing an application. Contact Marsha Prillwitz, Office of Water Use Efficiency at (916) 651- 9674.

Who May Apply

Applicants must be local public agencies, (cities, counties, cities and counties, joint powers authorities, or other political subdivisions of the State), or incorporated mutual water companies involved with water management. Agencies that wish to collaborate on a project may elect to use a contractor-subcontractor relationship or a joint powers authority. Contracts will be executed with one applicant only. The application must indicate who will sign the contract and the nature of the agreement between the other participants. The applicant must have primary ownership and management authority over any facility to be affected by the project.

Agencies subject to the Urban Water Management Planning Act must have adopted a complete plan that meets the requirements of the law, and submitted it to DWR to be eligible for the Urban Water Conservation Grant Program. If you have questions regarding compliance with the Urban Water Management Planning Act, please contact David Todd at (916) 651-7027 or dtodd@water.ca.gov.

Geographic Scope

Projects throughout California will be considered for funding.

Duration of Projects

Funds must be expended within three years of the execution of the contract. If the project exceeds one year in duration, a budget with discrete 12-month periods shall be provided.

Projects may be multi-year efforts if necessary and appropriate for the scope of work, but proposal timelines and budgets that will be incorporated into the contract must not exceed three years. In addition, since funding may be awarded for only a portion of each submitted project, the applicant must identify which tasks could be funded separately.

Eligible Projects

This program will fund feasible, cost effective urban water conservation capital outlay projects that improve water use efficiency.

Capital outlay projects are those in which an agency builds or buys something of a permanent nature (with a life of seven years or more) that contributes toward water use efficiency. Capital outlay expenditures shall be immediately and exclusively tied to the achievement of the project purposes. Construction, improvement, repair, and renovation projects, as well as projects involving the purchase and installation of project-specific equipment or other water saving devices may be eligible. Projects that involve the applicant's customer purchasing eligible equipment or devices for which the applicant provides a rebate after installation may be eligible for funding.

Improvements to water distribution system controls, major improvements or replacement of leaking distribution system components, or other capital outlay features of Best Management Practices (BMPs), as identified by the California Urban Water Conservation Council, are eligible.

Eligibility of Urban Best Management Practices:

	Eligible?
1. Water survey programs for residential customers	No
2. Residential plumbing retrofit	Yes
3. System water audits, leak detection and repair	Yes
4. Metering with commodity rates and retrofits	Yes
5. Large landscape (dedicated landscape meters)	Yes
6. High-efficiency washing machines	Yes
7. Public information programs	No
8. School education programs	No
9. Commercial, Industrial, and Institutional	Yes
10. Wholesale agency assistance programs	No
11. Conservation pricing	No
12. Conservation coordinator	No
13. Water waste prohibition	No
14. Residential ultra low flush toilet replacement	Yes

Eligibility of Potential Best Management Practices:

1.	Rate structure and other economic incentives	No
2.	Efficiency standards- appliances & irrigation devices	No
3.	Replacement of existing water using appliances	Yes
4.	Retrofit of existing car washes	Yes
5.	Graywater use	Yes
6.	Distribution system pressure regulation	Yes
7.	Water supplier billing records broken down	No
8.	Swimming pool and spa covers	Yes
9.	Restrictions devices that use evaporation	No
10.	Point of use water heaters	Yes
11.	Efficiency standards- industrial & commercial	No

For more information about BMPs, contact the California Urban Water Conservation Council at www.cuwcc.org, or call (916) 552-5885.

Ineligible Projects

Wellhead rehabilitation, new storage tanks providing expanded capacity, water supply, water treatment, wastewater treatment, flood control, conjunctive use, recycled water, and groundwater banking projects **are not eligible** for funding through this program. No funds will be available to replace existing funding sources for ongoing projects, for political advocacy, for the purchase of water, for the establishment of a reserve fund, or for an applicant's litigation costs.

Conflict of Interest and Confidentiality

All participants are subject to State and federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in the application being rejected and any subsequent contract being declared void. Other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code Section 1090, and Public Contract Code Sections 10410 and 10411 for State conflict of interest requirements.

Once the application is signed and submitted to DWR, the applicant waives any right to privacy and confidentiality with respect to the information contained in the application.

Application Review, Evaluation, Selection and Award Process

1. Applications are received by DWR and initially reviewed by the CALFED Water Use Efficiency Agency Team: Department of Water Resources, United States Bureau of Reclamation, Natural Resources Conservation Service, and CALFED.
2. Applications are reviewed by Science and Economics Technical Teams.
3. Applications and Technical Team Reports are provided to the Review Panel (composed of CALFED Agencies, stakeholders, and subject matter experts).
4. The Review Panel members submit preliminary ratings, based on the Selection Criteria.

5. The Review Panel convenes to discuss applications, receives any additional clarification from the technical teams, and revises their scores, as desired.
6. The CALFED WUE Agency Team receives final ratings and comments from the Review Panel and produces a preliminary list of projects recommended for funding based on Review Panel ratings, geographic and categorical distribution, and availability of funds.
7. Public workshops are held and public comments received.
8. Recommendations are presented to the CALFED Water Use Efficiency Subcommittee.
9. Final funding recommendations are presented to the DWR and CALFED Policy Group, or their designee.
10. DWR makes the final funding decision.
11. Projects selected for funding will be posted on the DWR website at www.water.ca.gov
12. Contracts are prepared and executed, projects begin.

Prior to the execution of a contract, the applicant shall provide a resolution from its governing board accepting the funds and designating a representative authorized to execute the contract and sign requests for disbursement.

Applicants should not begin work on their projects prior to commitment of funding. Capital outlay costs incurred prior to the commitment of funds will not be reimbursed.

Preparation of contracts will begin as soon as projects are approved. However, it may take several months to develop and finalize the contracts for successful applications, depending upon the complexity of each project and the readiness of the applicant. Funding agreements are not final until signed by the applicant's authorized representative and DWR.

Anticipated Schedule

The anticipated schedule for this process is as follows:

10/01/02	Application Package released
10/8/02 - 10/21/02	Public workshops held
12/03/02	Applications due
02/15/03	Review, selection, and public process completed
04/20/03	DWR makes final funding decision
10/01/03	Contracts executed, projects begin

Selection Criteria

Proposals will be reviewed and ranked according to the following criteria:

- A. Technical/Scientific Merit, Feasibility, Monitoring and Assessment (Part A-4 through A-7): **30 points**
- B. Qualifications of the Applicants and Cooperators (Part A-8): **5 points**
- C. Innovation (Part A-9): **10 points**
- D. Relevance and Importance (Part D-1): **10 points**
- E. Outreach, Community Involvement and Acceptance (Part D-2): **10 points**
- F. Benefits and Costs (Part E & F): **35 points**

No project with an average total score of less than 70 points will be funded.

How to Submit an Application

Please submit 1 original, 8 hard copies, and 1 electronic copy of the application on 3.5-inch diskettes or CD-ROM (preferably in a PDF format or in MS Word and/or Excel compatible format) by **3:00pm, DECEMBER 3, 2002** to:

**California Department of Water Resources
Office of Water Use Efficiency
P.O. Box 942836
Sacramento, California 94236-0001
Attention: Marsha Prillwitz
Telephone: (916) 651-9674**

For hand delivery or Overnight Carrier, deliver to:

**California Department of Water Resources
Office of Water Use Efficiency
1416 Ninth Street, Room 338
Sacramento, California 95814
Attention: Marsha Prillwitz**

The entire application shall be in 12-point font or larger with sections numbered according to the sections specified in this application package.

Application Part A — Project Description, Organizational, Financial and Legal Information

A-1 Urban Water Conservation Grant Application Cover Sheet

1. Applicant (Organization or affiliation): _____
2. Project Title: _____
3. Person authorized to sign and submit proposal:
Name, Title _____
Mailing address _____
Telephone _____
Fax _____
E-mail _____
4. Contact person (if different):
Name, Title _____
Mailing address _____
Telephone _____
Fax _____
E-mail _____
5. Funds requested (dollar amount): _____
6. Applicant funds pledged (local cost share) (dollar amount): _____
7. Total project costs (dollar amount): _____
8. Estimated net water savings (acre-feet/year): _____
Estimated total amount of water to be saved (acre-feet): _____
Over _____ years _____

Benefit/cost ratio of project for applicant: _____
Estimated \$/acre-feet of water to be saved: _____
9. Project life (month/year to month/year): _____
10. State Assembly District where the project is to be conducted: _____
11. State Senate District where the project is to be conducted: _____
12. Congressional District(s) where the project is to be conducted: _____
13. County where the project is to be conducted: _____
14. Do the actions in this application involve physical changes in land use, or potential future changes in land use?
(a) Yes _____
(if yes, complete the land use check list at
http://www.calfed.water.ca.gov/adobe_pdf/Questionnaires_EC_Permits_Land_Use.pdf and submit it with the proposal
(b) No _____

A-2 Application Signature Page

By signing below, the official declares the following:

The truthfulness of all representations in the application;

The individual signing the form is authorized to submit the application on behalf of the applicant;

The individual signing the form read and understood the conflict of interest and confidentiality section and waives any and all rights to privacy and confidentiality of the application on behalf of the applicant; and

The applicant will comply with all terms and conditions identified in this Application Package if selected for funding.

Signature

Name and title

Date

A-3 Application Checklist

Complete this checklist to confirm all sections of this application package have been completed.

Part A: Project Description, Organizational, Financial and Legal Information

- ☐ A-1 Urban Water Conservation Grant Application Cover Sheet
- ☐ A-2 Application Signature Page
- ☐ A-3 Application Checklist
- ☐ A-4 Description of project
- ☐ A-5 Maps
- ☐ A-6 Statement of work, schedule
- ☐ A-7 Monitoring and evaluation
- ☐ A-8 Qualification of applicant and cooperators
- ☐ A-9 Innovation
- ☐ A-10 Agency authority
- ☐ A-11 Operation and maintenance (O&M)

Part B: Engineering and Hydrologic Feasibility (construction projects only)

- ☐ B-1 Certification statement
- ☐ B-2 Project reports and previous studies
- ☐ B-3 Preliminary project plans and specifications
- ☐ B-4 Construction inspection plan

Part C: Plan for Environmental Documentation and Permitting

- ☐ C-1 CEQA/NEPA
- ☐ C-2 Permits, easements, licenses, acquisitions, and certifications
- ☐ C-3 Local land use plans
- ☐ C-4 Applicable legal requirements

Part D: Need for Project and Community Involvement

- ☐ D-1 Need for project
- ☐ D-2 Outreach, community involvement, support, opposition

Part E: Water Use Efficiency Improvements and Other Benefits

- ☐ E-1 Water use efficiency improvements
- ☐ E-2 Other project benefits

Part F: Economic Justification, Benefits to Costs Analysis

- ☐ F-1 Net water savings
- ☐ F-2 Project budget and budget justification
- ☐ F-3 Economic efficiency

Appendix: Benefit/Cost Analysis Tables

- ☐ Tables 1; 2; 3; 4a, 4b, 4c, 4d; and 5

A-4 Description of Project

Provide a brief narrative description (500 words or less) of the proposed project. Discuss the project purpose, goals, objectives and location (including longitude and latitude when appropriate). Provide a summary of the methods, procedures, expected outcomes, and benefits and costs.

A-5 Maps

For construction projects, provide a detailed map of the project area, preferably a 1:24,000 scale copy or original of a 7.5-minute USGS quad sheet. Mark the location of the project components. Identify the water source and all conveyances from the water source to the proposed project on the map.

A-6 Statement of Work, Schedule

Provide a project plan and work schedule with tasks, deliverable items, start and end dates, and projected costs for each task, along with a quarterly expenditure projection. Identify start and completion dates of each task and identify which tasks are considered to be inseparable if only a portion of the project would be funded. This plan will form the basis of the required quarterly and annual project fiscal and programmatic reports. Tasks listed in the work schedule should match those in the budget. Tasks may overlap.

Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives and the applicant's readiness to proceed, including methods, procedures, equipment, and facilities.

NOTE: If the proposed project is to be phased, expand the project timetable to include all of the necessary information for each phase. Successful applicants will be contractually obligated to complete all project phases that comprise the overall project scope on which DWR's findings of eligibility are based, whether the project is funded solely by a DWR urban water conservation grant or from combined sources.

A-7 Monitoring and Evaluation

Describe the monitoring and assessment procedures that will be used to document water savings, other benefits, to mark progress, and to determine the success of the project. Include a list of project-specific performance measures that will be used to assess project success in relation to goals and objectives. Include information about how the data and other information will be handled, stored, and made accessible. Provide a list of expected products/outcomes such as reports and other documentation, presentations, advances in technology, and information transfers via workshops, seminars, education programs, etc.

A-8 Qualifications of the Applicant and Cooperators

Include a resume(s) of the project manager(s). Resumes may be attached to the end of the Application and shall not exceed two pages.

Identify and describe the role of any external cooperators that will be used for this project.

A-9 Innovation

Describe innovative technologies or methodologies to be employed in the project that could contribute to improved efficiencies in projects throughout the State.

A-10 Agency Authority

Address the following five questions pertaining specifically to this application.

1. Does the applicant (official signing A-2, Application Signature Page) have the legal authority to submit an application and to enter into a funding contract with the State? Provide documentation such as an agency board resolution or other evidence of authority.
2. What is the legal authority under which the applicant was formed and is authorized to operate?
3. Is the applicant required to hold an election before entering into a funding contract with the State?
4. Will the funding agreement between the applicant and the State be subject to review and/or approval by other government agencies? If yes, identify all such agencies (e.g. Local Area Formation Commission, local governments, U.S. Forest Service, California Coastal Commission, California Department of Health Services, etc.).
5. Is there any pending litigation that may impact the financial condition of the applicant, the operation of the water facilities, or its ability to complete the proposed project? If none is pending, so state.

A-11 Operations and Maintenance

(Required for construction projects only, including meter installations.)

Provide a summary of the operation and maintenance (O&M) costs for the applicant's current water facilities. List the source of revenue to fund such costs.

Provide an estimate of operation and maintenance costs for the new or expanded facilities proposed for funding under this application and the impact of these costs on the applicant's current operations and maintenance budget. Identify a source of funds to address any additional operation and maintenance costs resulting from the project.

Application Part B—Engineering and Hydrologic Feasibility

(Application Part B required for construction projects only, including meter installations.)

The facility must be feasible from a hydrologic standpoint and an engineering standpoint. The information requested in Sections B-1 through B-4 will be used by DWR to confirm that the proposed water conservation facilities are feasible from a hydrologic and engineering standpoint. Provide references for all sources of information provided in Part B.

B-1 Certification Statement

A certification statement regarding project feasibility must be signed by a California registered civil engineer working on this project. Cite the references (such as feasibility studies, engineering design studies, hydrologic studies and water rights permits, or contracts) used to determine feasibility.

Sample engineering feasibility certification statement

I, _____, a California registered civil engineer, have reviewed the information presented in support of this application. Based on this information, and any other knowledge I have regarding the proposed project, I find that it can be designed, constructed, and operated to accomplish the purpose for which it is planned. There is a sufficient water supply for the project. The information I have reviewed to document this statement is included (*provide list, e.g., feasibility studies, engineering design studies, water rights permits, etc.*).

(Original signature and stamp with expiration date)

B-2 Project Reports and Previous Studies

Provide a copy of all reports and studies prepared for the proposed water conservation project. If a feasibility study has not been completed for the project, explain what has been done to determine the project's feasibility.

B-3 Preliminary Project Plans and Specifications

Provide a copy of preliminary project plans indicating type of construction, types and quantities of materials, dimensions, cross-sectional drawings and profile drawings, location, elevation (if available), planned mitigation measures (if required), and other appropriate features. The preliminary plans need to be at least a 30 percent plan drawing. Provide a copy of preliminary project specifications, including citations of all standards used and all applicable health and safety specifications such as OSHA standards and applicable building codes (such as Uniform Building Codes).

A California registered civil engineer must prepare the preliminary and final plans and specifications. Each final plan sheet and the cover sheet of the final specifications must be signed and stamped by a California registered civil engineer.

B-4 Construction Inspection Plan

Provide a detailed construction inspection plan describing who will inspect the site and project before, during, and after construction, and when inspections will be made.

Application Part C—Plan for Completion of Environmental Documentation and Permitting Requirements

The application must include a plan for compliance with all applicable environmental requirements. The plan should address all the potential environmental, social and economic impacts of the proposed project, including mitigation, required under the California Environmental Quality Act (CEQA) and, if applicable, the National Environmental Policy Act (NEPA). The plan should also address compliance with local, county, State, and federal permitting requirements. If this project is not subject to CEQA or NEPA, so state in this section.

C-1 California Environmental Quality Act and National Environmental Policy Act

For projects to be considered for funding, the applicant must submit to DWR the following items as part of the application:

- A detailed plan for compliance with all applicable environmental laws.
- A schedule for completion of all appropriate environmental documentation.
- A completed Environmental Impact Checklist that can be found at:
http://ceres.ca.gov/topic/env_law/ceqa/guidelines/Appendix_G.html
If an Initial Study has been prepared for the project, provide a copy of the checklist accompanying that document.

Compliance with NEPA must also be demonstrated if NEPA requirements apply to the project.

CEQA/NEPA documentation must be completed prior to contract execution.

For complete information on the CEQA process, applicants may request a copy of the California State Clearinghouse Handbook by calling (916) 445-0613 or by submitting a written request to:

The State of California
Governor's Office, Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

For general information about environmental compliance, refer to this website:
<http://ceres.ca.gov/ceqa>.

To determine whether a project falls within the CALFED solution area, applicants may refer to the map on the CALFED home page at: <http://calfed.water.ca.gov/>. For the CALFED Land Use Checklist that is required for projects that involve physical changes in land use, applicants may refer to "Guide to Regulatory Compliance for Implementing CALFED Actions" at: http://calfed.water.ca.gov/environmental_docs.html.

For assistance in establishing environmental significance of project specific impacts to farmland, please refer to this website:
http://www.consrv.ca.gov/DLRP/gh_lesa.htm

C-2 Permits, Easements, Licenses, Acquisitions, and Certifications

List all required permits, easement rights, licenses, land acquisitions, and certifications of approval of federal, State, and local agencies that may be required for the proposed project. If the proposed project will require Section 404 permits, or streambed alteration permits, address this in the plan for CEQA/NEPA compliance.

If the proposed project will involve or impact a reservoir or dam of any dimension, the applicant will need to contact Stephen Verigin, Chief, DWR Division of Safety of Dams at (916) 445-7606 or sverigin@water.ca.gov.

Submit a plan and schedule for obtaining permits required for the proposed project. Information about obtaining the necessary permits can be found at: http://ceres.ca.gov/topic/env_law/ceqa/guidelines/intro.html#intro_anchor.

C-3 Local Land Use Plans

Provide a listing of all relevant local land use or general plans and description of how the proposed project fits within those plans.

C-4 Applicable Legal Requirements

Provide a list of all other federal, State and local laws, statutes, regulations, and ordinances governing the proposed project, including any applicable local surface water and groundwater ordinances. Provide evidence of compliance or a plan for compliance.

Application Part D- Need for Project and Community Involvement

D-1 Need for the Project

Include an explanation of the need for the project. “Need” means the urgency of need for the project, and the negative consequences if not implemented. Need is determined by the general condition of the water system, current and future water supply and demand, dependency on the water supply, water quality conditions, availability of substitute supplies, and any negative impacts of current surface water or groundwater management.

Describe the current water system condition. Describe the agency’s current sources of water, including substitute supplies. Also provide a description of the existing distribution system facilities. Describe any mismatch between these current water system conditions and projected agency demand.

Describe how this project would be consistent with local or regional water management plans or other resource management plans.

Provide a description of the expected impacts within the agency’s service area if the proposed project is not constructed. Potential impacts could include employment, business and industry, emergency supplies, water quality, agency loss or gain of revenue, public safety, and the environment. If the project is within the CALFED solution area, provide a description of how the project will impact the attainment of specific CALFED objectives for ecosystem restoration, water quality, and water supply reliability that apply to the project area. For information about CALFED objectives, please go to:

<http://calfed.water.ca.gov/general/objectives.html>

D-2 Outreach, Community Involvement, Support, Opposition

Prior to submitting an application, applicants are encouraged to coordinate with local governments and other local entities such as community based organizations and watershed groups. Applications shall describe a plan for public outreach to the groups or individuals that may be affected by the project. Identify which local groups or other interested organizations are aware of the project and their level of support or opposition. Identify any potential third party impacts. Estimate the number of people or organizations that are expected to receive training, employment, or other social or economic benefits from the project.

Provide a description of how the proposed project fits into both local and regional plans. Include a description of how the applicant has or plans to seek the involvement and input from other community groups and individuals as well as tribes. Community and tribal involvement can be demonstrated through a written summary of community and tribal involvement activities and agreements reached. Include supporting documentation.

Include in the description how other local agencies whose jurisdiction or water service area is adjacent to the project location may be involved in the project.

Describe any opposition to the proposed project. Identify any parties in opposition and briefly discuss the situation.

Application Part E—Water Use Efficiency Improvements and Other Benefits

E-1 Water Use Efficiency Improvements

Under this program, all eligible water conservation projects must demonstrate improvements in water use efficiency. For purposes of this application, water use efficiency means an action or an activity that causes the net value of the beneficial use of water to be increased. This increase can be due to a decrease in the costs associated with the use of that water (e.g., reduced acquisition and/or treatment costs), an increase in the value generated by the use of that water (e.g., increased urban, agricultural, or environmental water supply reliability) or both.

Explain through a narrative description, and quantify whenever possible, how the proposed water conservation project will result in improved water use efficiency.

E-2 Other Project Benefits

This category includes other benefits and accomplishments from the proposed project not included above. When economic values cannot be assigned to expected project benefits, expected project benefits should be quantified in physical terms. For example, estimates of increases in stream flow volume due to the project at a time of year when those flows would be important to fish habitat enhancement should be provided. Any expected project accomplishments that cannot be assigned a numerical value, either in dollars or in specific physical quantities, should be described as completely as possible.

If the proposed project is within the CALFED solution area, provide a description of how proposed benefits will help achieve specific CALFED objectives for ecosystem restoration, water supply reliability, and water quality that apply to the project area. For more information, please go to the CALFED website at www.calfed.water.ca.gov.

Additional benefits may accrue to the intended project beneficiaries, including purchasers of marketed supplies developed by the project, or they may also accrue to third parties, including direct and indirect environmental benefits. This can include an evaluation of economic justification beyond that directly associated with the parties participating in the proposed project, either as the project builder or as a purchaser of any developed supply.

Report any expected project accomplishments that would accrue to parties not directly participating in the proposed project as beneficiaries but which may be affected by hydrologic changes related to project implementation (e.g., stream flow, water quality) anywhere in the system.

Explain through a narrative description, and quantify whenever possible, how the proposed water conservation project will result in other project benefits.

Application Part F – Economic Justification: Benefits to Costs

This section requires the quantification of economic benefits accruing to those parties directly involved in the project, including purchasers of water developed by the project. The calculation will be used to determine if project benefits are equal to or greater than project costs.

For a project to qualify for a grant, the Benefit/Cost ratio must be equal to or greater than 1.0.

A format for calculating and presenting benefits, costs and economic efficiency may be found in the Tables in the Appendix. Use the quantitative data developed from Parts F-1 through F-3 to complete the Tables and justify the data presented there. An Excel version of the Tables is available on the DWR website at www.water.ca.gov Please use those tables or a similar methodology (with full documentation) to complete this section of the application.

F-1 Net Water Savings

Under this program, all urban water conservation projects must demonstrate net water savings in order to be eligible to receive funding. Net water savings means savings achieved by reducing water losses that are currently going to an “unusable” destination from an already-developed primary water source or sources. Net water savings can be achieved by:

- reducing losses to the atmosphere through evaporation or transpiration
- reducing losses to saline or other unusable aquifers or water bodies through percolation or surface flows

The reduction or elimination of water losses percolating to usable groundwater aquifers or returning to streams where the water is available for reuse **is not** considered part of net water savings. The reduction or elimination of water losses recovered or potentially recoverable outside the local agency’s service area is also not considered to be net water savings.

Provide an explanation as to how the proposed urban water conservation project will produce a net water savings. Cite and attach any pertinent back-up data.

Describe and calculate or estimate the net water savings (in acre feet per year) to be produced by the project and describe how the value was determined. Enter this amount in Table 4.

F-2 Project Budget and Budget Justification

Funding awarded for urban water conservation projects under this program may be used for reasonable costs of engineering design, land and easement acquisition, purchase and installation of project-related equipment, legal fees, environmental mitigation, and construction of water conservation facilities, including monitoring systems to assess project impacts. Applicants should consider the applicability of prevailing wage laws when estimating project costs.

Costs that **are not eligible** for funding include:

1. Costs, other than those noted above, incurred prior to applying for or receiving funding,
2. Operation and maintenance costs,
3. Purchase of equipment not an integral part of the project,
4. Establishing a reserve fund,
5. Purchase of water supplies,
6. Replacement of existing funding for ongoing programs,
7. Support of existing agency requirements and mandates,
8. Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of the project, as set forth and detailed by engineering and feasibility studies, and
9. Payment of principal or interest of existing indebtedness or any interest payments unless:
 - a) The debt is incurred after issuance of a letter of commitment of funds by DWR;
 - b) The DWR agrees in writing to the eligibility of the costs for reimbursement before the debt is incurred; and
 - c) The purposes for which the debt is incurred are otherwise eligible project costs.

Project Budget

Prepare a detailed project budget that includes the following items, including a description and justification for each item in the budget.

- a) Land Purchase/Easement
- b) Planning/Design/Engineering
- c) Materials/Installation
- d) Structures
- e) Equipment Purchases/Rentals
- f) Environmental Mitigation/Enhancement
- g) Construction Administration/Overhead
- h) Legal & License Fees
- i) Other
- j) Contingency Costs up to 15 percent of budget
- k) TOTAL

Enter the budget information into Table 1. Calculate the annual costs for administration, operations, maintenance and other costs; enter into Table 2.

F-3 Economic Efficiency

Include all quantifiable direct economic benefits accruing to project participants, relative to the cost of the project. Any expected third party economic benefits arising from the project may be included.

Also, provide a description of additional quantifiable economic benefits directly going to project participants. These economic benefits might result from water quality improvements, reduced treatment costs, reduced operations and maintenance costs, environmental uses of water, energy savings, or other factors.

For the purposes of calculating the economic value of benefits, the preferred approach is to use either avoided costs or alternative costs of future supply sources, whichever is most appropriate. The avoided cost valuation method is appropriate only if it is reasonable to assume that the identified alternative(s) would indeed be implemented if the proposed project did not provide the claimed benefit.

The value of the project's water supply is determined by how the water will be used. If the applicant has enough water supplies for the foreseeable future, then the water conserved by the project will allow that agency to reduce the amount of water purchased, diverted, or pumped from its most expensive current water supply source. However, if the applicant needs to augment water supplies to meet future demands, then the value to the water agency is measured by the least-cost alternative that may be eliminated or delayed because of the project. Finally, if the applicant plans to sell all or part of the project water to existing customers, new customers, or other agencies, then the value of the conserved water can be measured by the expected price for which it is sold, thus generating revenue. Although in most cases only one of those benefits will apply, it is possible that a combination of benefits can occur.

Analysis assumptions

Applicants must use the following assumptions in determining the benefits and costs for the proposed project:

- **Period of analysis.** The economic evaluation for construction projects shall be based on an analysis period of up to 50 years. For other capital outlay projects involving the purchase and installation of water conserving equipment or devices, the period of analysis will vary, but must be no less than seven years.

- **Inflation and escalation.** For ease of analysis, applicants shall assume zero future inflation and escalation of costs.

- **Discount rate.** Because benefits and costs of projects are evaluated over a period of time based on the life of the project, they must be discounted to reflect the value of money over time (a dollar received today is worth more than one received in the future). DWR uses a 6 percent discount rate.

- **Dollar value base year.** All benefits and costs shall be expressed in current year dollars (please indicate year).

- **Multiple-funded projects.** The economic analysis shall be conducted for the entire project, regardless of funding sources. All project costs (capital and O&M) must be included in the economic analysis, even if the applicant requested grant funds for only part of the project.

Project costs (Tables 1, 2, and 3). Project costs usually include capital (construction) and annual operation and maintenance (O&M) costs. Although some project costs are not fundable under this program, all costs required to achieve project benefits must be included in the economic evaluation. If the project consists of multiple components, include all of them in the project budget.

Avoided Cost of Current Supply Source (Table 4a). The cost an applicant would incur if the proposed project is not implemented as a result of deferring, eliminating, or downsizing projects to provide future water supply. Report **only** the portion of the cost of water that would be avoided as a result of the proposed project. Describe how the avoided cost was calculated.

Alternative Cost of Future Supply Sources (Table 4b). The costs an applicant would incur if an alternative project is implemented instead of the proposed project. Provide documentation that the alternative project is being considered formally, such as Board minutes, and indicate when the alternative project would be implemented.

Water Supply Vendibility (Table 4c). The anticipated revenue from water sales to existing customers, new customers, or other agencies. Provide documentation that a water sale is being considered as a result of this project.

Describe and calculate the avoided cost of current supply sources and the alternative costs of future supply sources. Enter that information into Tables 4a and 4b. Describe and calculate the anticipated revenue from water sales and enter that information into Table 4c. If the project has other costs or benefits that are not adequately captured in the tables, describe them here.

Appendix- Benefit/Cost Analysis Tables

Table 1: Capital Costs

Table 2: Annual Operations and Maintenance Costs

Table 3: Total Annual Costs

Table 4a: Water Supply Benefits: Avoided Cost of Current Supply Sources

Table 4b: Water Supply Benefits: Alternative Cost of Future Supply Sources

Table 4c: Water Supply Benefits: Water Supplier Revenue (Vendibility)

Table 4d: Total Water Supply Benefits

Table 5: Benefit/Cost Ratio

Table 6: Capital Recovery Factor

If Operation and Maintenance Costs or Benefits vary significantly over time, use the “Long Form” Tables provided on the website at: www.water.ca.gov.

Please contact Lorraine Marsh, DWR Economist at (916) 653-6414 or lmash@water.ca.gov if you need assistance or have any questions about the tables.

Table 1: Capital Costs

	Capital Cost Category (a)	Cost (b)	Contingency Percent (c)	Contingency \$ (d)	Subtotal (e)
				(bxc)	(b+d)
(a)	Land Purchase/Easement				
(b)	Planning/Design/Engineering				
(c)	Materials/Installation				
(d)	Structures				
(e)	Equipment Purchases/Rentals				
(f)	Environmental Mitigation/Enhancement				
(g)	Construction/Administration/Overhead				
(h)	Project Legal/License Fees				
(i)	Other				
(j)	Total (1) (a + ... + i)				
(k)	Capital Recovery Factor: use Table 6				
(l)	Annual Capital Costs (j x k)				

(1) Costs must match Project Budget prepared in Section F-2.

Table 2: Annual Operations and Maintenance Costs

Administration (a)	Operations (b)	Maintenance (c)	Other (d)	Total (e)

Table 3: Total Annual Costs

Annual Capital Costs (1) (a)	Annual O&M Costs (2) (b)	Total Annual Costs (c) (a+b)

(1) From Table 1 line (l)

(2) From Table 2 Total, column (e)

Table 4: Water Supply Benefits

Net water savings (acre-feet/year) _____

4a. Avoided Costs of Current Supply Sources

Sources of Supply (a)	Cost of Water (\$/AF) (b)	Annual Displaced Supply (AF) (c)	Annual Avoided Costs (\$) (d) (b x c)
Total			

4b. Alternative Costs of Future Supply Sources

Future Supply Sources (a)	Total Capital Costs (\$) (b)	Capital Recovery Factor (1) (c)	Annual Capital Costs (\$) (d) (b x c)	Annual O&M Costs (\$) (e)	Total Annual Avoided Costs (\$) (f) (d + e)
Total					

(1) 6% discount rate; Use Table 6- Capital Recovery Factor

4c. Water Supplier Revenue (Vendibility)

Parties Purchasing Project Supplies	Amount of Water to be Sold	Selling Price (\$/AF)	Expected Frequency of Sales (%) (1)	Expected Selling Price (\$/AF)	"Option" Fee (\$/AF) (2)	Total Selling Price (\$/AF)	Annual Expected Water Sale Revenue (\$)
(a)	(b)	(c)	(d)	(e) (c x d)	(f)	(g) (e + f)	(h) (b x g)
Total							

- (1) During the analysis period, what percentage of years are water sales expected to occur? For example, if water will only be sold half of the years, enter 50% (0.5).
- (2) "Option" fees are paid by a contracting agency to a selling agency to maintain the right of the contracting agency to buy water whenever needed. Although the water may not be purchased every year, the fee is usually paid every year.

4d: Total Water Supply Benefits

(a) Annual Avoided Cost of Current Supply Sources (\$) from 4a, column (d)	
(b) Annual Avoided Cost of Alternative Future Supply Sources (\$) from 4b, column (f)	
(c) Annual Expected Water Sale Revenue (\$) from 4c, column (h)	
(d) Total Net Annual Water Supply Benefits (\$) (a + b + c)	

Table 5: Benefit/Cost Ratio

Project Benefits (\$) (1)	
Project Costs (\$) (2)	
Benefit/Cost Ratio	

(1) From Tables 4d, row (d): Total Annual Water Supply Benefits

(2) From Table 3, column (c) : Total Annual Costs

Table 6: Capital Recovery Factor

(Use to obtain factor for Table 1, Line k or Table 4b, Column (c))

Life of Project (in years)	Capital Recovery Factor
7	0.1791
8	0.1610
9	0.1470
10	0.1359
11	0.1268
12	0.1193
13	0.1130
14	0.1076
15	0.1030
16	0.0990
17	0.0954
18	0.0924
19	0.0896
20	0.0872
21	0.0850
22	0.0830
23	0.0813
24	0.0797
25	0.0782
26	0.0769
27	0.0757
28	0.0746
29	0.0736
30	0.0726
31	0.0718
32	0.0710
33	0.0703
34	0.0696
35	0.0690
36	0.0684
37	0.0679
38	0.0674
39	0.0669
40	0.0665
41	0.0661
42	0.0657
43	0.0653
44	0.0650
45	0.0647
46	0.0644
47	0.0641
48	0.0639
49	0.0637
50	0.0634



*California Department of Water Resources
Office of Water Use Efficiency
P.O. Box 942836
Sacramento, CA 94236-0001*